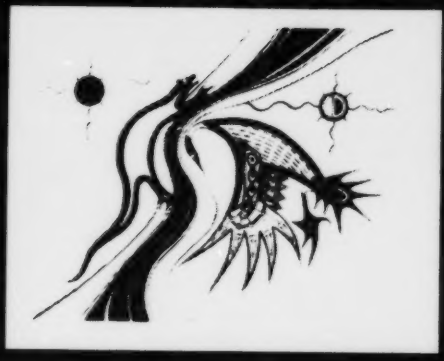

Canada

87-01819/

About the Illustrations

The Westcoasters

(Bottom)

The Indians who now live along the west coast of Canada are direct descendants of skillful mariners who navigated the open ocean of the North Pacific in hand-hewn cedar canoes long before the arrival of the European. To attain their livelihood these people daily braved the perils of an area frequently referred to as the "Graveyard of the Pacific." The "Westcoasters" is a graphic visual tribute to the courageous and indomitable spirit of the west coast people.

Creation

(Middle)

To use the artist's words " . . . meaningful traditions are governed by the works of the Creator, and are believed to be sacred. It is from nature that the Native peoples adopt symbolism." Thus the "Creation" became the first of his Iroquois paintings. It is a work that portrays in physical symbols a vision of ancient Iroquoian spiritual concepts: the Turtle Island — the Earth, the Great Tree of Peace — Brotherhood and Unity, the Guardian Eagle — the Creator's watchcare, and the Sun — our Elder Brother.

The Goose and the Mink

(Top right)

The Northern Goose and Mink serve as a vivid portrayal symbolizing the unending and universal struggle between good and evil, the forces of life and death. In both the animate and the inanimate creation — in the prey and in its predator and in the variations between the lightened and the darkened suns — we see an emphasis on the continuing conflict between these forces and the pathway of division between them.

and the Artists ...

Roy Henry Vickers

Roy Vickers is a Coast Tsimshian who spent his early youth at Kitkatla, an ancient Indian village on an Island at the mouth of the Skeena River, British Columbia. Later his family settled in the Victoria area. While there, in art classes at school he was unable to relate to the European painters and the "great masters" and turned instead to the art of his Tsimshian heritage; it was here that he found himself.

It wasn't long before his artwork showed considerable promise and he was admitted to the Gitanmax School of Northwest Coast Indian Art at Ksan in Hazelton, B.C. In two years of intense study at Gitanmax, Roy matured into a highly skilled artist with a marked ability to sensitively blend traditionalist and contemporary forms. (Roy's other talents include University lecturing and television acting.) His carvings and paintings may be found in major public and private collections in Canada, the United States and Japan.

Arnold Jacobs

Arnold Jacobs is a Six Nations' Iroquois artist who is emerging as a visual interpreter and historian of the rich culture of his people. After studying in the Special Arts Program at Toronto's Central Technical School, Arnold went on to develop his distinctive techniques through thirteen years of experience in the commercial arts field. His works have brought him international recognition.

Central to Arnold's creative expression are symbols of the earth and sky — such as the waters, the four winds, thunder and the sun. For him these supporters of life are also spiritual forces that should inspire within us true thankfulness to the Creator.

Jackson Beardy

Jackson Beardy was born as the fifth son of a family of 13 in the isolated Indian community of Island Lake, about 600 kilometres north of Winnipeg, Manitoba. Deprived of his home and language at the age of 7, he spent 12 disorienting and traumatic years in residential school life. Thus Jackson's early manhood found him in the struggle to reconcile the two worlds of white and Indian society. It was at this time that he returned north in a quest to again learn the ways and teachings of his people.

Later, unrecognized and being unaware of any other Indian artists in Canada, he began to pioneer his own art form — one portraying traditional legends and nature in uniquely colourful, creative and symbolic images. In time his paintings have found their place in established collections throughout North America and Europe. His recent death in December of 1984 was lamented as a great loss to Canada.

Submitted to:

Mr. Peter Fillipoff
Program Evaluation Branch
Department of Indian Affairs and Northern Development
10 Wellington Street
Suite 1902
Hull, Quebec

Prepared by:

Ekos Research Associates Inc.
Suite 304, 171 Nepean Street
Ottawa, Ontario K2P 0B4
(613) 235-7215

Summary Report of the Evaluation of the On Reserve Housing Program

March 21, 1986

ACKNOWLEDGEMENTS

This study is one of the largest and most challenging program evaluation projects ever conducted in Canada. Although any errors are ultimately the responsibility of Ekos Research Associates we would like to share any success the study achieves with a host of individuals and groups without which the study would have been impossible.

First, we would like to thank the Indian people of the 94 communities who patiently endured yet another survey with excellent cooperation. We trust this study justifies their forbearance.

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Finally, we would like to thank our subcontractors, in particular Price Waterhouse Associates, for their skilful managerial review of the program.

EKOS Study Team

Principal Investigator and Project Director	Frank L. Graves
Co-Investigator	Helen McDonald
Assistant Project Director	David Redmond
Senior Analyst, EDP	Gaye Souchen
Junior Analyst	Liza Goulet
Regional Field Coordinator	Robin Souchen
Logistics Coordinators	Pamela Riseborough Jane Peddie Daphne Carriere
Word Processing	Michelle Chretien Karin Lacey Debbie Forrest
Senior Translator	Michèle Coulombe
Junior Translator	Louise Fortin
Principal Authors	Frank L. Graves Helen McDonald

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EXECUTIVE SUMMARY

This program evaluation addresses issues regarding the value for money achieved with the DIAND On Reserve Housing Program. Questions of past program effectiveness and efficiency are dealt with in an attempt to provide firm guidance for program renewal. The issues are difficult since the program is only partially responsible for Indian housing conditions, which are in turn only one aspect of the overall living conditions on reserve.

The study conclusions are based on multiple lines of evidence drawn from a survey of 94 bands and 1870 houses. Data include physical dwelling inspections, occupant and band interviews, a managerial review of field and national offices, 1977 condition measures, program administration data and a variety of other data sources. In analysing these data the following major findings are evident:

A. Current Adequacy of the Housing Stock

Housing on reserve is seriously inadequate in both absolute and relative terms. We estimate that about three quarters of all houses are inadequate in the sense that they fail to meet some very basic standards of safe and decent housing. These rates of inadequacy are many times higher than for the general Canadian population. In more specific terms:

i) 47 per cent of the stock fails to meet basic standards of physical house condition.

ii) 36 per cent of the stock is seriously overcrowded in terms of minimal standards.

iii) 38 per cent of the stock lacks some or all components of basic amenities (running water, indoor toilet, bath/shower).

These data are reinforced by a range of perceptual data provided by households, bands and experts. Another indicator of the severity of the problem is our crude cost estimate of the capital cost of correcting the problem: we estimate the total capital costs, exlcusive of "soft" costs for training, planning and delivery, is in the order of $840 million.

These problems are by no means uniformly distributed throughout the on reserve population. Levels of adequacy vary substantially, indicating high levels of inequality of conditions. General conditions are worse for rural and remote bands than for urban bands. By region, British Columbia has the highest levels of adequate housing whereas Manitoba is the worst housed.

B. Changes in Adequacy

Comparisons to 1977 measures indicate that there have been modest but significant improvements in overall levels of housing adequacy on reserve. These improvements have occurred in spite of a moderate growth in the size of the population served. In more specific terms:

i) A substantial decrease has occurred in the number of units which are in unsalvageable (beyond repair) physical condition (13 per cent in 1977 to two per cent in 1984). Despite success in selectively eliminating the absolute worst cases, it is unlikely that the total percentage of physically substandard units has declined. Bands are split almost evenly into those who improved and those who deteriorated.

ii) There has been a significant reduction in crowding problems since 1977. The average number of people per house has dropped from about six to five. Although crowding remains a serious problem there has been a significant improvement in this area despite a growing demand accompanying a rising on reserve population.

iii) Provision of basic amenities has improved significantly since 1977. About one third more households now have basic amenities than in 1977.

C. Factors Underlying Current and Changing Conditions

Individual involvement and commitment to the dwelling is one of the key factors underlying superior housing conditions. Dwellings where individuals have either been involved in design, or contributed sweat equity or capital, or have developed a sense of responsibility for the maintenance of the house, tend to be in much better condition than those where these factors are absent.

Bands which have relied exclusively on DIAND funding have not been able to achieve the same levels of improvement as those which have employed both DIAND and CMHC programs. The most successful places have creatively combined DIAND, CMHC, band and household resources to produce the greatest improvements.

Bands generally have a high (and increasing) degree of responsibility for housing delivery although the relative level of band responsibility is not a significant factor in explaining improvement. Higher levels of band involvement area also associated with greater incidence of occupant involvement.

Recommendations

Based on the empirical findings and an understanding of the evolving policy context we have made a series of recommendations to improve the program. Our major recommendations include the following:

- a more prominent recognition of existing housing need in the program allocation formula;
- the development and implementation of a comprehensive housing need and demand information system to assist with policy development and planning, allocation of program funds, monitoring and evaluation;
- greater involvement of individual households through consultation in housing design, sweat equity and capital contributions, and greater occupant responsibility for property maintenance;
- enhanced coordination of federal on reserve housing and infrastructure efforts through more structured communication among actors and greater central guidance in program planning and operations;
- greater and more formal Indian involvement in national and regional program planning and policy development; and
- the immediate creation of a temporary body or task force, composed of DIAND, other federal agency and Indian representatives, to translate evaluation findings and recommendations into practical action.

In the long run we recommend the consolidation of on reserve housing programs into a single program operated by a single agency (which might eventually be Indian managed).

Our study recommendations are primarily factually based but there are important outstanding issues which involve both facts and values. These issues concern the appropriate level and distribution of resources to be committed to the resolution of the housing problem and the appropriate sources of funding, the appropriate balance between housing quantity and quality, and the appropriate balance between housing and economic development concerns. Our study sheds some light on these questions. Current funding levels are inadequate to resolve housing problems

within the decade and the diversion of resources to eliminate existing backlog need may hurt the bands with high levels of population growth. Spreading funding thinly to provide marginal quality housing for all Indian households may increase the pace of progress but in the long run may be more expensive as a result of accelerated stock obsolescence rates. There appears to be a trade-off between encouraging the capture of economic benefits generated by housing activity and the provision of good quality housing at minimum cost. Encouraging the economic development aspects of housing activity may increase per unit costs in the short run and reduce affordability to the occupant in the absence of compensatory government intervention.

1.0 INTRODUCTION

1.1 Aims and Strategy of the Evaluation

The purpose of this report is to provide a brief overview of the essential findings, conclusions and recommendations of the evaluation of the Department of Indian Affairs and Northern Development (DIAND) On Reserve Housing Program (ORHP). The program sets itself the challenging ultimate objective of providing adequate housing for Indians living on reserve. This evaluation addresses the issues of whether the program is still required, how well it has performed and what alternatives are available which could produce a more efficient, economical and effective program. These questions are formidable and unfortunately there are no simple answers nor simple formulae which will immediately solve the thorny problems facing the program. However, the evaluation does provide some important conclusions regarding continued need for the program and major directions for program renewal.

We have exercised caution in developing recommendations for program renewal for several reasons. The evaluation point of view is primarily retrospective, focusing on what has actually happened in the past relative to what was intended to happen. One cannot, however, simply assume the future will resemble the past and mechanically extrapolate past trends. We must synthesise our knowledge of past performance with our understanding of the rapidly evolving policy context in which the program operates. Perhaps more importantly, we must be cognizant of the dangers of artificially isolating housing problems from the overall system of factors that underlie Indian living conditions.

Care is also required in light of the unique difficulties posed by our assignment to evaluate the ORHP. This DIAND program does not operate in a vacuum, but rather within a complex and turbulent environment characterised by a multiplicity of actors and blurred lines of accountability. Furthermore, the future of the program is viewed with keen interest by a range of different stakeholders. All of this complexity is set against the historical backdrop of the evolution of Indian self-government.

Despite these complexities and the considerable logistical difficulties of conducting the field work we believe this may be the most promising and useful study conducted to date of Indian living conditions on reserves in Canada because of the strengths of the approach utilised. Our findings are based on both objective and subjective information collected from a variety of sources and levels and at different points in time (see Appendix A, Data Sources). For the most part, these sources have produced complementary and consistent findings.

In spite of our confidence in our findings we have tried to be aware of the limitations of the study and to explicitly recognise the caveats and uncertainties which confound this exercise. In developing conclusions we have not simply restricted ourselves to a mechanical production of program renewal recommendations based on purely individual findings. In some cases, the analysis and evidence lead us to direct and clear conclusions and recommendations. In other instances, we are merely in a position to provide a more intelligent reformulation of the issue and to provide substantive guidance as to the pros and cons of what are ultimately normative choices. Program evaluation does not provide technocratic solutions to what must remain political

judgements. To maintain the credibility of our study we have clearly indicated the substantive basis for all our recommendations, and distinguished unresolved dilemmas from empirically grounded recommendations.

1.2 Brief Program Description

The program provides capital contributions for new construction and the repair of existing housing. The level of the capital contribution varies with local cost levels. In 1984/85 the new construction subsidy ranged from $19,080 to $33,000 and the average rehabilitation contributions averaged $6,000. Special allowances are also available to offset exceptional freight costs and economic subsidies of up to $12,037 are supplied to compensate bands with weak economic bases.

The program shares responsibilities for providing decent housing on reserves with Indian bands and individuals, and the Canada Mortgage and Housing Corporation. CMHC operates four programs on reserve for social or band owned housing, individual direct homeowner lending and rehabilitation. The Canadian Employment and Immigration Commission (CEIC) also provides job creation funds, often specifically targetted at housing. Finally, there are other DIAND programs which affect the supply of or demand for housing - in particular, social assistance and infrastructure.

1.3 The Four Originating Questions

This evaluation sought to address a host of issues and questions. Without getting lost in the detail of these problems, it is important to keep sight of the four

originating questions which underlie the study:

(1) What is the current adequacy of the housing on Indian reserves? (Current need for the program?)

(2) How is the situation changing through time? (Trends in housing need).

(3) What factors explain current and changing conditions? In particular, what does the On-Reserve Housing Program have to do with current conditions and recent changes in housing conditions? (Program impacts).

(4) What recommendations can be made to improve the effectiveness and efficiency of the program? (Program alternatives).

1.4 Overview of the Methodology

To collect the data necessary to address these issues we visited a random but nationally representative sample of 94 reserves across Canada. Appendix B lists the participating reserves. Trained native interviewers interviewed 75 band housing managers, 78 community health nurses and 1,871 households and conducted technical "skim" inspections of their homes. Building inspectors independently inspected a 25 per cent subsample of these units. In addition, interviews were conducted with 41 DIAND regional and district office staff, national Indian housing agency representatives and DIAND and CMHC national office program staff.

1.5 Report Organisation

The balance of this report summarises our substantive findings, conclusions and recommendations. The second chapter presents a summary of findings which pertain to the first three originating questions. The conclusions follow after the evidence germane to each question has been considered. The question of program alternatives is addressed in a final chapter in which we outline our recommendations and discuss the residual unresolved dilemmas.

A much more comprehensive description of study methods and findings is contained in a series of additional reports. The reader is urged to refer to the full technical report for a more complete review of approach and analysis. Other pertinent background documents are described in Appendix C of this report.

As a final note before considering the major evaluation findings we would like to further qualify the ensuing presentation of statistics and evidence. By its nature, program evaluation is a sober, dispassionate exercise which marshalls factual information and relies on logic to draw conclusions. It is important to remember, however, that the following collection of dry statistics and formulae are the quantitative reflections of a legacy of human suffering to which no one should be indifferent.

2.0 SUBSTANTIVE FINDINGS AND EVALUATION CONCLUSIONS

2.1 Current Housing Adequacy (Need for an On Reserve Housing Program)

The starting point for our presentation of findings is the question of whether current levels of housing adequacy justify the continuation of the program. We speak of "adequate" housing as a global concept summarising the overall acceptability of the dwelling. Adequacy contains three major dimensions:

(1) physical house condition;
(2) crowding; and
(3) access to basic facilities and amenities.

This first section considers the performance of the on reserve stock on these three individual dimensions and in terms of overall adequacy.

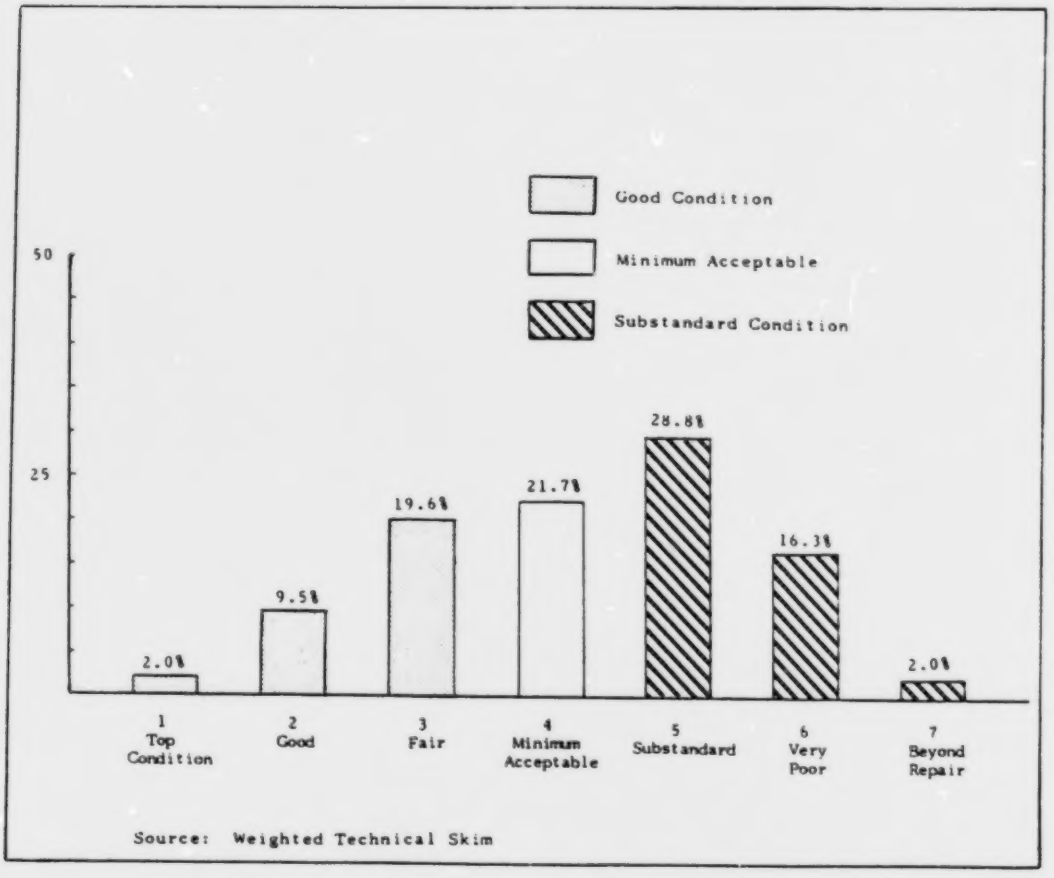
2.1.1 Physical Condition

Physical house condition is a normative concept which refers to the current state of the building relative to a continuum ranging from a theoretical optimum to a worst possible state. It should be noted that physical condition refers only to the relative shape of those material items and systems actually present within the existing dwelling.

Exhibit 1 provides a graphic display of the current, overall level of physical conditions evident on reserve. The most obvious conclusion is that much of the on reserve stock is in very poor physical condition. It is

rather alarming to note that about forty-seven per cent of the stock is judged as physically substandard to the degree that it requires immediate, serious rehabilitation. The exhibit presents a summary rating of condition based on dozens of item and system ratings.

EXHIBIT 1
Ratings of Current Overall Level of Physical Condition



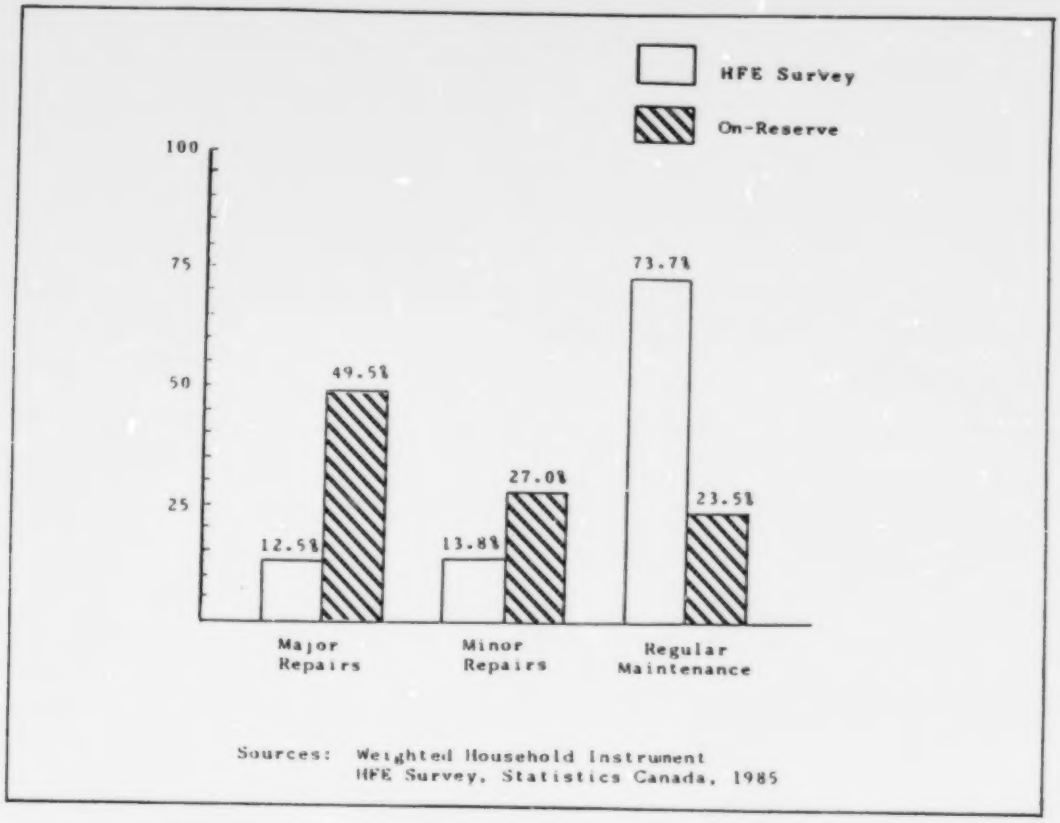
In order to further underline the severity of the problem we note that the average cost to rehabilitate an average substandard (but repairable) dwelling on reserve is around $10,300. This figure does **not** consider either

additions or improvements to deal with crowding problems nor does it include the costs of providing basic amenities if these are absent. The total capital costs of restoring the existing substandard stock to minimal physical condition standards would exceed $200 million. (This figure is exlcusive of "soft" costs for training, planning and delivery.)

The poor physical condition of the dwelling is probably due to a combination of poor initial construction and design (resulting from insufficient financial resources prior to 1980 and variable quality project management) and poor maintenance practices. It is probably impossible to accurately isolate the relative importance of these factors and there is certainly an additional interactive effect since poor initial quality and design breed poor maintenance.

We can also compare physical house conditions for the on reserve population with those of the entire Canadian population using a Statistics Canada Household Facilities and Equipment Survey question which asked occupants to indicate whether their dwelling needed regular maintenance, minor repairs or major repairs. Exhibit 2 shows the comparison of the national census figures to our sample survey results. It is readily apparent that conditions on reserve are far worse than for the nation as a whole. Half of the sampled on reserve occupants assessed their units as being in need of "major repairs". The corresponding (1985) national figure is thirteen per cent. We can conclude that the relative incidence of (occupant-rated) major repairs is four times higher on reserves. This comparison vividly illustrates the fact that physical conditions on reserve are many times worse than in the rest of the country.

EXHIBIT 2
Comparison of Occupant Ratings of Repair Needs (1984 On Reserve Survey and 1985 Household Facilities and Equipment (HFE) Survey)



Sources: Weighted Household Instrument
HFE Survey, Statistics Canada, 1985

To avoid the fallacy of simply imposing our "objective" definition of what is adequate housing, we sought confirmation of our findings from other sources. The band interviews also point to a severe problem with housing condition. Fifty-seven per cent of bands rated the physical condition of their on reserve housing stock as inadequate and 31 per cent considered that it just met minimum levels of acceptability. Forty-four per cent of households are dissatisfied with their units (only 27 per cent are satisfied and 29 per cent neither satisfied nor dissatisfied).

All of these data reinforce the conclusion that poor physical condition of housing units is a very serious and widespread problem on reserves.

2.1.2 Crowding - Spatial Suitability

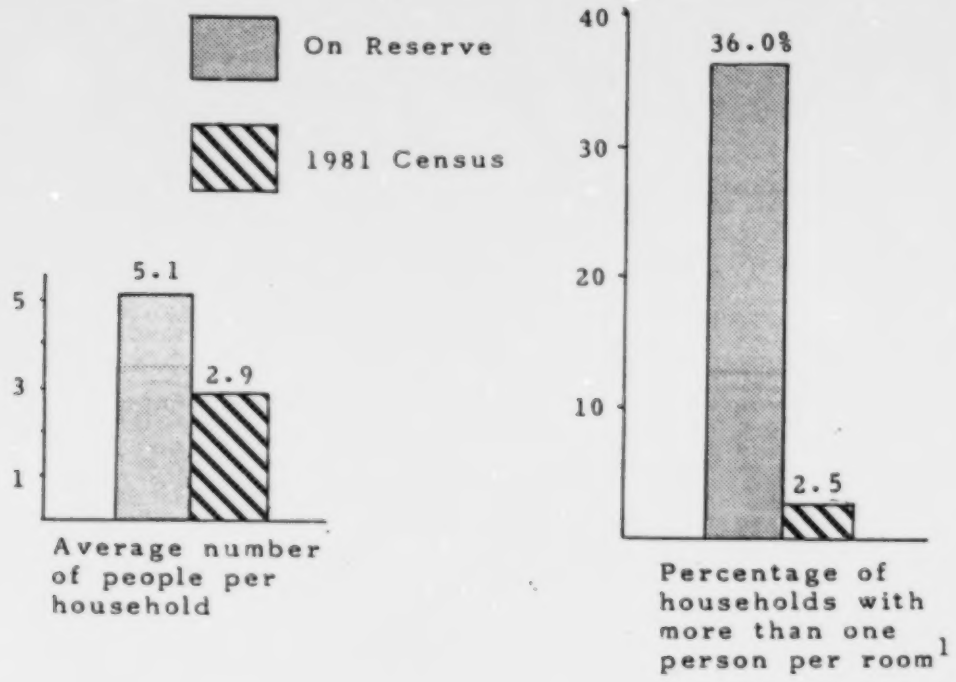
The spatial suitability of the unit is another key dimension of overall shelter adequacy. As can be seen from Exhibit 3, crowding is a significant problem on Indian reserves. Compared to the overall Canadian situation, houses on reserve are fourteen times more likely to fail minimum crowding standards (i.e., have more than one person per room). Two and a half per cent of Canadian households live in crowded conditions, whereas 36 per cent of Indian households on reserves are living in overcrowded dwellings. As another indicator of crowding, the average number of persons per dwelling is higher on reserve (5.1) compared to Canadian society as a whole (2.9) and we know that Indian houses are typically smaller than those in the general stock.

Our conclusion that crowding is a serious problem is substantiated by the subjective ratings by occupants of the spatial suitability of their homes. Nearly half of on reserve households feel they lack adequate space. The band assessments of the spatial adequacy of on reserve housing support these findings. Fifty-eight per cent of bands rate the amount of space within their housing stock as inadequate. This statistic is similar to the rating for physical condition problems.

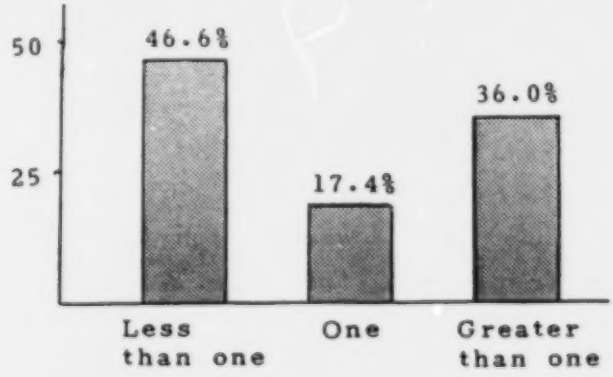
Eighteen per cent of on reserve households share their unit with more than one family. In order to provide

EXHIBIT 3
Crowding Indicators

A. On Reserve and Census Comparison of Crowding Indicators



B. Number of People per Room



Sources: Weighted Household Instrument
1981 Census Catalogue No. 92-932

[1] The Census figure is for occupied private dwellings. We have assumed this is equal to the number of households.

an additional unit for each multifamily household we would estimate a current requirement for about 7,600 new dwelling units. An additional 10,000 households need, at minimum, an addition or extension of their homes to reduce crowding. Excluding "soft" costs for planning, delivery and training, the immediate capital costs to relieve current crowding problems might total about $380 million.

2.1.3 Access to Amenities

The third main dimension of overall adequacy is possession of complete basic amenities. Our definition of a dwelling with complete basic amenities requires the presence of the following three items: (i) running water; (ii) an indoor toilet; and (iii) a bath or shower.

Our investigation of this area of adequacy leads us to conclude that access to basic amenities is a much more serious problem on reserve than for the overall Canadian population. Amenities are important to occupant health, safety and comfort, yet a very substantial minority of on reserve households (thirty-eight per cent) are lacking one or more of these basic facilities. This incidence of lack of basic amenities is twenty-two times greater than the incidence within the overall Canadian housing stock (less than two per cent).

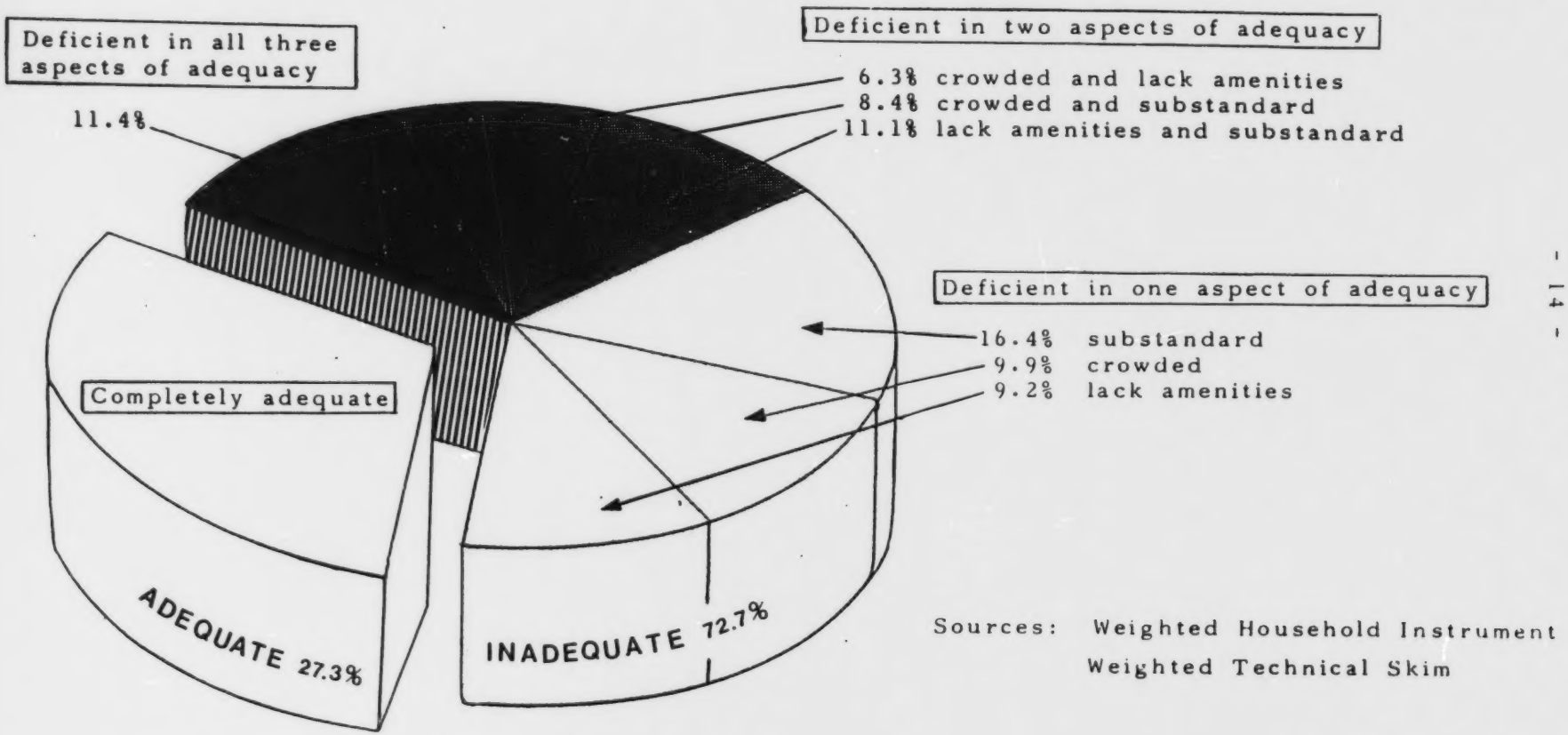
It is impossible to precisely estimate the capital cost of providing missing basic amenities to all on reserve dwellings currently lacking them - particularly in isolation from infrastructure costs. A very rough cost estimate for the capital costs of providing the basic systems plus hookup would be about $264 million.

2.1.4 Overall Adequacy of On Reserve Housing

Recall that we had defined inadequate housing as that which fails to meet minimum physical condition standards, has more than one person per room, or lacks complete basic facilities and amenities. Almost three quarters of the stock on Indian reserves (73 per cent) fails on at least one of these three dimensions (11 per cent fails on all three). This means that **most** houses on reserve cannot be judged to be providing adequate housing for their occupants. Overall housing conditions on reserves are also demonstrably inferior to those in the general Canadian stock by a broad margin. Although exact comparisons are difficult, a comparable estimate of the incidence of inadequate housing within the overall Canadian stock would be less than ten per cent. Exhibit 4 displays the distribution of the stock by level of overall adequacy.

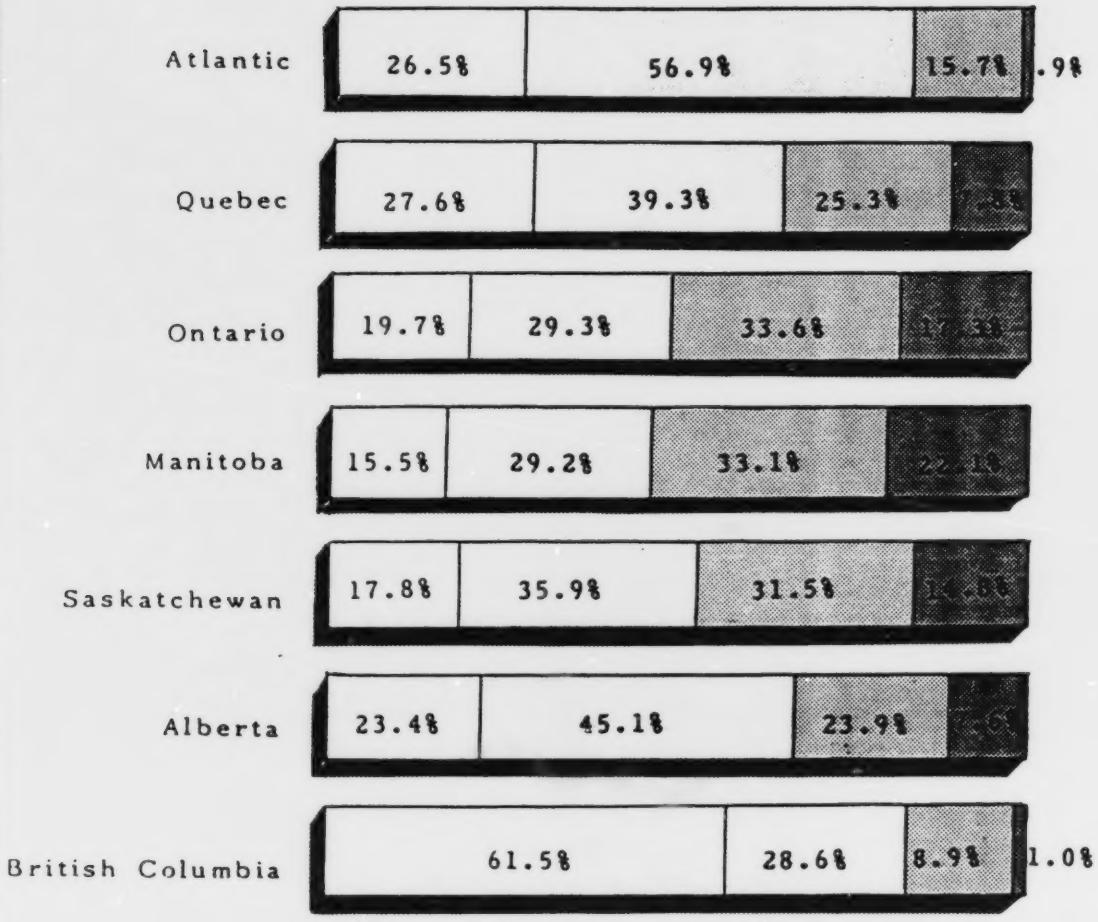
Housing problems are by no means uniformly distributed across all reserves and regions. Looking at the overall adequacy by region, the incidence of **adequate** housing ranges from 62 per cent in British Columbia to only 16 per cent in Manitoba. Exhibit 5 displays the regional distributions of housing by level of overall adequacy. Housing conditions also vary by the geographical category (geocode) of the band. Urban reserves are most likely and remote/special access reserves least likely to meet minimum standards for physical conditions, adequate space and facilities. We conclude that there are unacceptably high levels of inequality. This is clearly true by region and we have similar evidence of inequalities both within and between bands.

EXHIBIT 4
Percentage Distribution of Stock by
Levels of Overall Adequacy



Sources: Weighted Household Instrument
Weighted Technical Skim

EXHIBIT 5
Percentage Distribution of Stock by Level of Overall Adequacy by Region



Sources: Weighted Household Instrument
Weighted Technical Skim

2.1.5 Conclusions Regarding the Current Need for an On Reserve Housing Program

Returning to the originating question of what is the current level of overall adequacy and how this translates into need and demand for the program we are able to draw the following conclusions.

The overall conclusion is that there is a continued and urgent need for the program inasmuch as the overall objective of a minimally adequate house eludes the majority of Indians living on reserve. The majority of the on reserve stock is inadequate in the sense that it fails to meet some basic standard of safe and decent housing.

The immediate capital costs (exclusive of "soft" costs) of providing minimally "adequate" housing for all Indians living on reserve would be (very) roughly $840 million. Note that this does not include a renovation cost adjustment factor to compensate for the geographical isolation of many reserves. Nor does it include any provision for the implementation of Bill C-31, the legislation recently passed to re-establish status for a number of Indian people.

High levels of inequality in the adequacy of on reserve housing by region and within regions also raises questions about the fairness of the process by which program funds are allocated. These disparities indicate that program activity has not been consistently or rigorously allocated by housing need. Other confirmatory evidence for this conclusion is drawn from interviews with DIAND national, regional and district office program staff which

showed that allocation formulae are inconsistent and only crudely related to need.

2.2 Changes Through Time (Evolving Patterns of Housing Need)

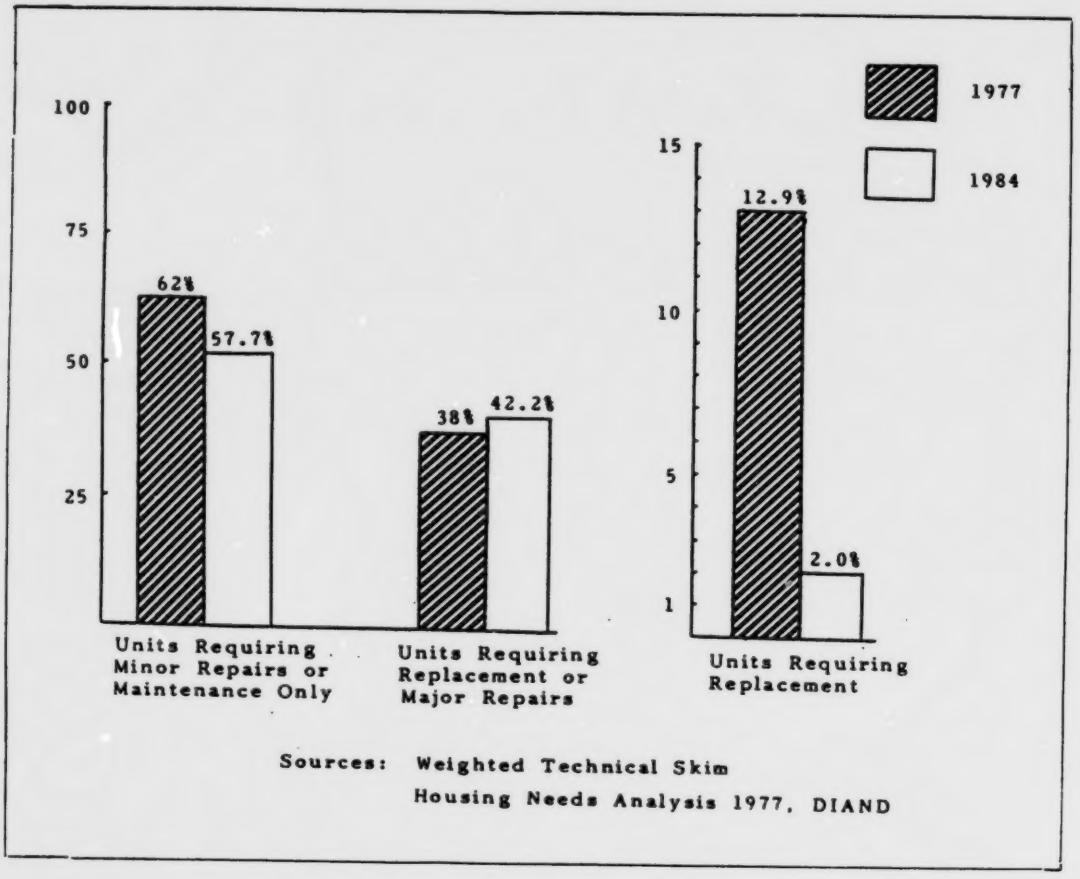
Having answered the question of what is the current need for housing on reserves we can now turn to the question of how this situation has changed in the past seven years. This comparison is a crucial preliminary step to drawing causal inferences about program performance. To assess performance we must be able to chart changes in levels of housing adequacy through time to see whether or not progress is being made. In this section we describe the changes in the three major dimensions of overall housing adequacy - physical condition, crowding and amenities - between 1977 and 1984.

2.2.1 Changes in Physical Conditions

A rough indication of changes in the physical condition of the stock is provided via a comparison of the portions of the stock on each reserve assessed in 1977 and 1984 as in need of major or minor repairs or as being beyond repair (needing replacement).

A substantial decrease has occurred in the number of units considered as beyond repair or requiring replacement. As Exhibit 6 demonstrates, the percentage of units requiring replacement has decreased five-fold during this seven year period, dropping from approximately 13 per cent to around two per cent. Although the percentage of

EXHIBIT 6
Changes in Physical Condition, 1977 to 1984



units requiring minor repairs or routine maintenance has also decreased, the percentage of units requiring major repairs has increased somewhat. In light of these findings, it is apparent that the **overall** percentage of on reserve households living in substandard conditions in 1984 is not smaller than in 1977 (and may in fact be somewhat higher).

Performance was quite varied among reserves to the degree that our survey reserves can be split into two groups: those that improved and those that declined.

Forty-six per cent of bands decreased the proportion of their units in need of major repairs or replacement and 54 per cent increased their share over time. There are also quite significant variations in the direction and rate of change by region. Overall, the western bands and regions have shown considerably better progress than the eastern bands and regions.

Of particular concern is the fact that even with the introduction of mandatory National Building Code (NBC) standards for new construction in 1983, 14 per cent of the stock built since the inception of this requirement is currently physically substandard. Our definition of substandard is based on a conservative application of the CMHC Minimum Property Standards for Existing Residential Buildings which is used when determining qualification of a property for a renovation loan under NHA.

The fact that a significant number of newly constructed dwellings are substandard by this CMHC existing standard, does not necessarily mean that the dwellings failed NBC standards at the time of construction. NBC standards are much more detailed and cannot easily be related to CMHC existing standards. However, given our review of the individual condition ratings of the failing group, it is quite implausible to assume that all of these dwellings met NBC standards at the time of construction or occupation.

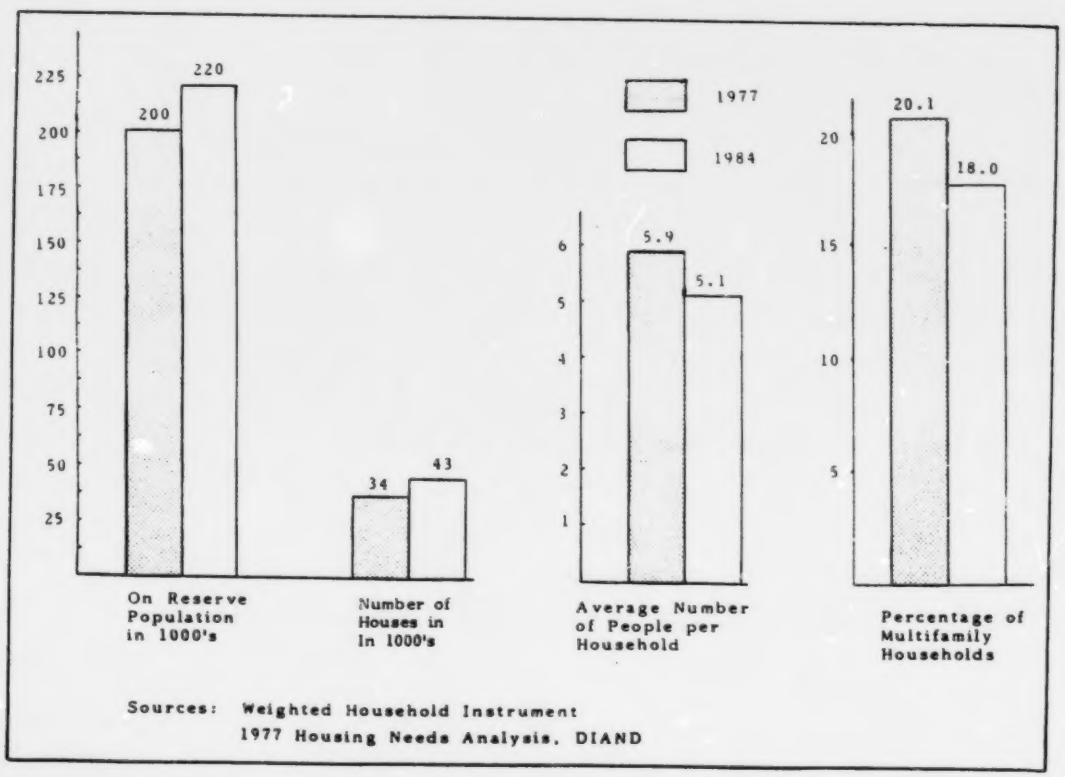
2.2.2 Changes in Crowding

Our analysis of current levels of crowding has shown this to be a significant problem on the reserves. The primary indicator used was the incidence of households with

more than one person per room. Unfortunately comparable data are not available for 1977 and so to measure changes over time we will need to rely on other indicators. These are displayed in Exhibit 7.

To begin with, the total number of occupied dwellings has increased by 26 per cent since 1977 while at the same time the on reserve population has increased by ten per cent. The resulting drop in the average number of persons per house (from 5.9 in 1977 to 5.1 in 1984) suggests a reduction has taken place in overcrowding levels. The incidence of households with more than one family also dropped marginally over time from 20 per cent to 18 per cent but we cannot be sure that this difference is statistically significant. On the basis of our evidence we conclude that despite growth in demand for housing and the loss or abandonment of about 6,000 units since 1977, there has been

EXHIBIT 7
Changes in Crowding, 1977 to 1984

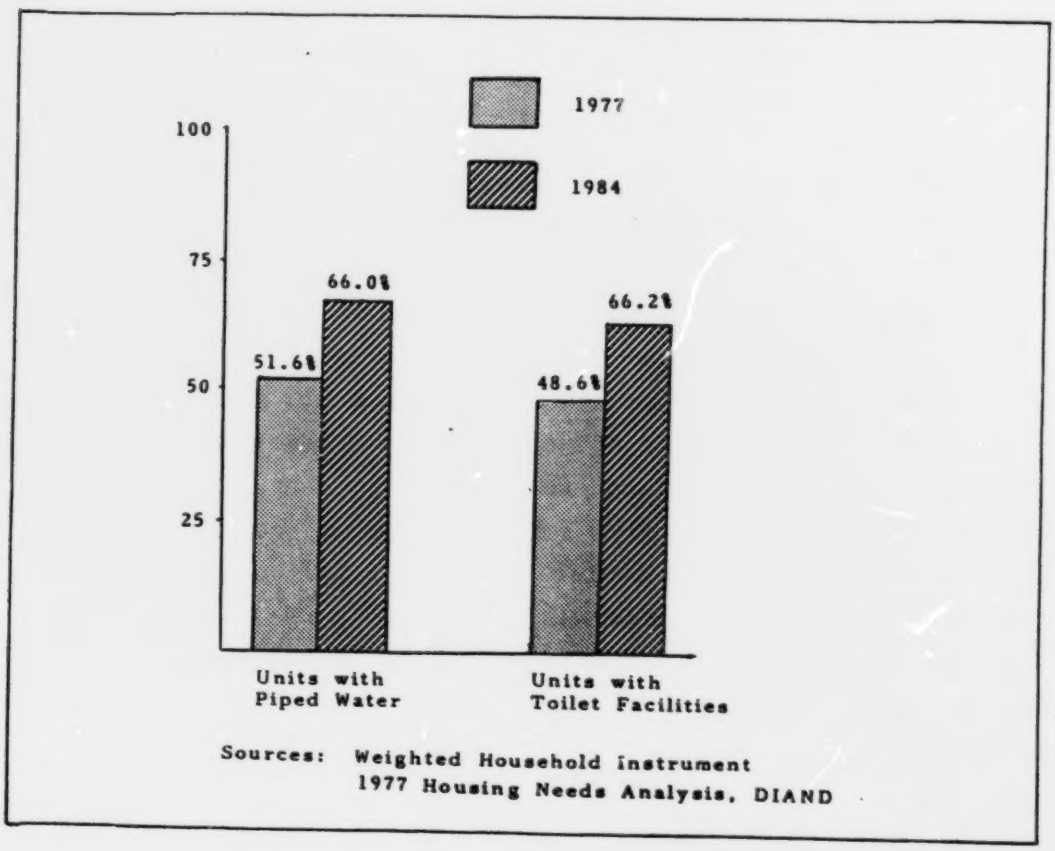


Sources: Weighted Household Instrument
1977 Housing Needs Analysis, DIAND

a significant increase in the supply of housing since 1977 and a corresponding decline in the incidence of overcrowding.

Performance varied at the regional level. The greatest progress in reducing the average number of persons per house has been made in the Prairie regions. In 1984 the regions with the lowest average number of persons per house are Ontario and Saskatchewan and the regions with the highest averages are Alberta and British Columbia. This is suggested as a rough proxy measure of overcrowding but it may not be directly reflected in the relative incidence of households with more than one person per room.

EXHIBIT 8
Changes in Access to Amenities, 1977 to 1984



Sources: Weighted Household Instrument
1977 Housing Needs Analysis, DIAND

2.2.3 Changes in Access to Amenities

The 1977 and 1984 data for access to basic amenities may not be perfectly comparable because of wording differences in the survey instruments. However, comparisons indicate access to basic amenities has improved over time. The percentage of units with running or piped water increased from 52 per cent to 66 per cent and the portion with indoor toilet facilities rose from 49 to 66 per cent.

The greatest progress has been made in Saskatchewan, Manitoba and Ontario. Very few units in Saskatchewan and relatively few in Manitoba had running water or indoor plumbing in 1977. Despite the great strides made over the intervening seven years to increase access, the percentages of units in these two regions with each of these basic amenities in 1984 are still much below the levels in other regions.

2.2.4 Conclusions Regarding Changes Through Time

Between 1977 and 1984, the overall adequacy of on reserve housing improved. A significant improvement was noted in the very worst part of the stock although the overall incidence of substandard housing does not appear to have changed. The lack of overall progress may be defensible to the extent that the program has properly focused efforts on the very worst housing conditions. However, we must also consider the marginal nature of pre-1980 housing built on reserve, resource limitations and poor maintenance practices in attempting to understand the absence of any significant improvement in the overall substandard group.

Our caveats about the comparability of 1977 and 1984 data on crowding and access to amenities notwithstanding, we feel signficant progress has been achieved in the reduction of these problems. In summary, modest improvements in overall adequacy have been made despite growing population demand.

2.3 Explaining Current and Changing Conditions (Program Impacts)

We now know what the current levels of housing adequacy are, how they have changed over the past seven years and how adequacy varies by location. The third originating question is even more challenging. Why do these current conditions exist? Why have some bands improved while others have deteriorated? What is the role of the ORHP and other factors in explaining current and changing levels of housing conditions?

In seeking to provide answers to these questions we began with a conceptual model which we hypothesized would predict (or explain, in a statistical sense) both current and changing levels of adequacy. The basic model assumed that our predictions of housing conditions or of changes on any given reserve (these are called the dependent variables) would be improved if we knew prior (1977) housing conditions, federal housing program activity, household inputs, band delivery style and economic capabilities (these factors are called the independent variables). Statistical techniques (the technical term is multivariate analysis) were used to empirically test the expected relationships between our dependent variables (or outcomes) and sets of independent or predictor variables. The results were highly satisfactory as we were able to explain from 34 to 57 per

cent of the variance in our dependent variables. We must remember that the models are "under-identified", i.e. we do not have data for all the factors that can account for the observed outcomes such as social dynamics or political structures, delivery efficiency, etc..

2.3.1 Factors Predicting Current Conditions

The model used to predict current housing conditions defined the dependent variable as the proportion of the units on the reserve currently in need of major repairs or replacement. Because our interest lay in exploring the effects of household involvement and program assistance, we wanted to ascertain the extent to which any changes in the dependent variable were due to these factors and not due to the average age of the reserve housing stock or the economic capability at the reserve level. When we removed the effects of these latter variables, we find that the reserves with better housing conditions are likely to exhibit high proportions of occupants who contributed household savings to build or purchase their homes. There are two important implications worth noting: first, household investment is a stronger predictor of current condition than recent federal per capita funding levels on the reserve, and second, the effect is not simply the reflection of greater financial ability to afford better quality housing or to maintain the stock. Equity investment by the occupant probably engenders greater pride in ownership and a greater willingness to maintain higher levels of housing quality.

Much weaker factors are the per capita levels of ORHP and of CMHC funding over the last three years as reported by the band. The modelling reveals that recent ORHP funding is to some extent being directed at reserves

currently with the worst housing conditions. Recent CMHC funding on the other hand is being utilised by reserves currently exhibiting better conditions (note that DIAND is responsible for the allocation of CMHC funds). Relative to conditions in 1977, higher levels of ORHP per capita funding over the past three years are associated with better conditions in 1977. There is no significant relationship with recent per capita levels of CMHC funding.

2.3.2 Factors Predicting Improvements in Housing Conditions

We are in a much better position to make inferences as to what factors cause good or bad housing if we use changes in conditions as the dependent variable. Several models were used to predict the change, between 1977 and 1984, in the percentage of units on the reserve in need of major repairs or replacement.

The modelling revealed that places in relatively worse condition in 1977 have shown relatively greater improvement over time. Places with better conditions in 1977 are more likely to have experienced no progress or even some backsliding in the need for major repairs. This relationship is evidence that there is some worst-first basis to program performance.

The relative geographical isolation of the reserve also has an impact in addition to and independently of prior conditions. More isolated bands show less improvement (if they improve at all) perhaps because the programs are less than completely effective in overcoming the economic disadvantages of transporting building materials over long

distances or because more isolated bands have less access to or ability to acquire the necessary construction and maintenance skills.

The extent to which households on the reserve contribute savings to acquire their housing is also an important predictive factor net of the effect of the general economic capability at the reserve level. Again this suggests that greater occupant responsibility for the resolution of housing problems would be an effective strategy to be pursued in program renewal.

Higher levels of recent per capita ORHP funding is not reflected in higher absolute improvements over time whereas recent per capita CMHC funding is. (We must remember that CMHC funding is always used in conjunction with DIAND funding.) We feel these relationships suggest the DIAND assistance by itself is less effective in producing adequate housing because the funding per unit is insufficient or bands are choosing to spread the dollars over more units of minimal quality rather than fewer units of higher quality. There is also a possibility that chronic dependency upon the ORHP may be breeding poor performance because the band learns to expect a continuous flow of replacement housing.

2.3.3 Occupant and Band Involvement in Housing

We have mentioned the importance of occupant investment, at the reserve level, to current housing conditions and changes over time. The evaluation also collected evidence of the impacts of occupant involvement at the individual unit level and these findings have important

implications for program renewal. In addition, we explored the extent to which Indian bands are increasing their capacity to plan, deliver and manage housing and the relationship between band and individual involvement.

Occupants participate in meeting their housing needs in three basic ways - by being involved in its design or construction, contributing household savings or through the ongoing maintenance and repair of the house. Occupants who were involved in the design or construction of their homes are more likely to occupy houses considered to meet or exceed minimum physical condition standards. They are also more likely to be satisfied with their housing and are, presumably, more inclined to care for it.

Occupant involvement in house design is also associated with higher levels of perceived suitability of the house design and this is associated with better current physical condition. The evidence of the study suggests that people take better care of housing that is well designed to meet their shelter needs.

Occupants who provided cash equity are also more likely to occupy housing which currently meets minimum physical condition standards and to be satisfied with their dwellings. Again this is not a function of income; involvement of this nature seems to engender a greater commitment and responsibility.

Newer housing tends to be in better condition either because it was built to higher standards or has had less chance to deteriorate through maintenance practices. However, with the older stock, occupant maintenance and

repair practices and attitudes are reflected in current housing conditions. The physical condition of the unit is better if the occupant pays for maintenance, is responsible for repair labour or costs, or if he or she feels the occupant should be responsible for repair costs. Attitudes tend to reflect practices and both will be influenced by financial ability; however, the study appears to confirm other research findings that people take better care of their housing if they are responsible for its day to day maintenance or have some input into maintenance decisions.

Turning now to band responsibilities for the delivery of housing, over three quarters of bands feel they have the lead role in planning and delivering new construction and rehabilitating the existing stock. About half indicated they had increased their delivery responsibilities in the past few years. To this extent the program appears to be making progress in increasing band involvement although a significant minority (somewhat less than one third of the bands) are dissatisfied with their current levels of responsibilities and one third feel they lack some of the skills they need to adequately manage their housing stock. Reported levels of band responsibility appear to be statistically independent of community performance in the housing realm.

Higher levels of band involvement do not appear to preclude individual involvement. At the reserve level, there is a positive relationship between the number of housing related responsibilities assumed by the band and the incidence of occupants responsible for repair and maintenance costs and labour.

2.3.4 DIAND Management Review

A review of the program standards and procedures was undertaken in order to see to what extent the implementation of the program helps account for observed outcomes. The review found that program objectives are poorly communicated to DIAND regional and district offices. As a result, the roles, responsibilities and priorities of field offices are not clearly or consistently defined. Program goals are defined in terms of numerical unit targets rather than the outcomes the program is expected to accomplish. The review found the criteria for allocating program funds differ considerably among the offices and that there is no consistent or fully developed method of measuring housing need. The degree and nature of band involvement also varies. Some support for these findings comes from the band interviewers: three quarters of the band representatives interviewed feel the program does not address the areas it was intended to.

2.3.5 Economic Development Benefits from Housing

A derivative and secondary objective of the On Reserve Housing Program is to encourage the acquisition of skills and the creation of jobs through the construction, rehabilitation and management of housing. While not a major focus of this evaluation, we do have some suggestion of the extent to which this is happening and the factors affecting this. We have not used an objective measure of economic development, rather we use the band's perception of the economic contribution made by housing programs.

Ninety per cent of bands feel the jobs generated

by housing programs make a contribution to the band's economy; however, the perceptions of the extent of this contribution vary considerably. Multivariate analyses using the perceived economic impact as the dependent variable indicate that increases in the number of band members with construction related skills are associated with greater economic development impacts, that more remote bands are more likely to rely on employment generated through housing, and that recent levels of per capita ORHP and of CEIC job creation funding are associated with a greater perceived economic impact whereas recent levels of CMHC per capita funding are not.

There may be a trade-off at work here - the pursuit of good quality housing at the lowest price restricting the capture of economic development benefits possible from housing activity.

2.3.6 Conclusions Regarding Program Impacts

By way of context, the program has met or exceeded Cabinet directives to complete 2,400 new houses and 3,000 renovations each year. These numerical program targets for unit delivery are, however, operational outputs and should not be confused with ultimate program objectives.

Secondly, we must reiterate that the program is not able to control all the factors responsible for housing conditions on reserves nor is DIAND solely responsible for the resolution of housing problems.

Finally, the assessment of the contribution of the program to the resolution of housing problems has been based on band reports of funding from various sources over the last three years. These reports are not always accurate or available for all bands. Ideally, we would have wanted program expenditure data for each of the last seven years for each of our sample reserves. We do not believe this deficiency affects the overall tenor of our evaluation conclusions, but it should be borne in mind as we cannot be precisely certain of its impacts.

Based on the band reports, we can conclude that the cumulative effect of federal housing programs has been to reduce the incidence of the worst housing (requiring replacement) over time. ORHP funding has been directed, to some extent, on the basis of housing need (although this is only because per capita allocations and other systems are rough proxies for need). Our analysis indicates ORHP by itself is less effective than CMHC programs in producing higher quality housing with a longer lifespan. This is likely because CMHC funding is almost always stacked on DIAND contributions and hence considerably greater total dollars are available to build a house. While initial housing quality will improve as a result of the introduction of mandatory construction standards in 1983, the per unit ORHP capital contribution is unlikely to be sufficient to provide housing which is suited to large Indian households incorporates design features that reduce operating and maintenance costs over its lifespan.

We also note the alarming incidence of units built since 1983 which are currently considered to be physically

substandard. Fourteen per cent of units built in 1983 or later fail to meet minimum standards for existing residential buildings. Problems are surface and structural. These problems are caused by poor housing design, construction materials or methods, poor siting and poor maintenance practices. Unfinished construction may also be a factor. Inspection and audit practices may need to be tightened and their scope widened to include siting.

According to band perceptions then, the ORHP also appears to generate greater benefits to the band's economy than do the CMHC programs because of the overriding concern of the latter programs for providing quality housing at a minimum cost.

Finally, we conclude that greater attention to increasing occupant involvement in housing design, construction and financing and responsiblity for maintenance and repairs would be rewarded by greater levels of occupant satisfaction and an extended stock lifespan. Occupant involvement of this nature should, therefore, be encouraged in tandem with the transfer of greater responsibilities to Indian bands.

3.0 RECOMMENDATIONS

3.1 Introduction

The previous chapter presented evaluation findings and conclusions with regards to current housing conditions, changes over time and program impacts. In this final chapter we make recommendations to improve the effectiveness and efficiency of the program, based on the evaluation evidence and our understanding of the evolving policy context for federal on reserve housing strategies.

Before doing so we briefly summarize the pertinent evaluation findings which can serve as a context for the following discussion. The study indicates the logic of the program design is valid, progress is being made in eliminating substandard and inadequate housing but that the program had not achieved its overall objective of providing safe and decent housing on Indian reserves. The pace of improvement is far too modest in the face of the severity of current needs.

The second major failing noted in the program as it currently operates is its inequitable performance as witnessed by the profound disparities in housing conditions. We suggested this was a result of a lack of consistently applied allocation formulae based on housing need. The results of the management review support this conclusion.

On the basis of the modest rate of objectives achievement in conjunction with disparities in the quality of housing throughout the on reserve population, we conclude

that simply fine-tuning the program will not suffice - major program changes must be considered in order to produce a more effective and efficient program.

The next section presents our recommendations for program renewal. These are directed at DIAND program managers, CMHC and other federal agencies and Indian people. The discussion is cursory and we advise interested readers to refer to the full technical report for a more in depth treatment.

3.2 Recommendations

3.2.1 Three Principles for Program Renewal

We suggest a strategy for program renewal which we are confident will provide greater value for money. The three principles underlying this approach are:

1. **A much more prominent role for housing need in the allocation of program funds (while recognising performance as a supplementary principle).**

2. **Greater Indian involvement and commitment at all levels but particularly at the individual household level and national/regional levels.**

3. **At the national and regional levels, greater levels of federal program consolidation with a view to a single organisational vehicle.**

3.2.2 Need-Based Allocation

The housing program has always been formally described as a need-based program, but our study indicates that true housing needs have a minimal role in guiding program delivery. The managerial review revealed need is neither consistently nor convincingly defined in the allocation systems of various levels of DIAND. Our independent assessment of objective housing conditions indicates radical differences within reserves, between communities and between regions. As a strategy for reducing these extreme levels of inequality, we recommend:

1.1 Need must become the salient principle for program allocations.

We are not recommending a unidimensional allocation system based solely on need, as defined by the historical backlog, nor an abrupt shift to need-based allocation. The aim is to provide a more balanced system which improves the rate of progress in eliminating the backlog while not penalizing areas with high annual needs due to accelerated obsolescence and net new family formation rates. Implementation should be orderly and gradual in order to minimise negative impacts.

In order to implement such a recommendation there must be a shared understanding of need which is both clearly defined and operationally feasible. The definition of need must be multidimensional since shelter adequacy is not a

simple concept. Minimally, the definition of need should reflect: (a) physical condition standards; (b) spatial suitability; (c) access to basic amenities; and (d) household affordability.

A system based simply on need may tend to dampen motivation since distinguished performance will result in relatively diminished needs, hence lower allocations. Although the elimination of urgent housing needs is a reward in itself, flexibility should be built into the allocation formula to allow positive inducements for more efficient and effective use of resources, and to permit short-term, one-time strategies for community development, etc.. (Need, however, should be the predominant factor in such a formula.) Hence we recommend:

1.2 Performance be included in a weighted allocation formula to provide a direct, concrete inducement for efficiency and effectiveness.

The successful incorporation of a (principally) need-based allocation approach will require the consensus of Indian people and program and policy personnel on the appropriate definition of need. To obtain this consensus, we recommend:

1.3 The immediate creation of a formal body (e.g., a ministerial task force) composed of Indian representatives, DIAND officials, CMHC and other agency representation, to translate the evaluation findings (particularly in the area of defining need) into practical action.

The involvement of senior government officials will be necessary to demonstrate DIAND's commitment, at the highest levels, to the principles involved - a need-based allocation process and participation of the Indian people in the process of program reform.

Once a practical allocation formula has been agreed upon, we recommend:

1.4 The development and implementation of a comprehensive information system to assist with policy development, program planning and delivery, monitoring and evaluation.

The system should provide a data bank of consistent housing and infrastructure indicators collected at the community level. This intelligence system would provide crucial planning and monitoring information of assistance to local community planning and, in its aggregated form, to regional and national planning. The systems would be used to identify the most urgent areas of need and make reliable and valid comparisons of shelter need and demand over time and between places. The system should be intimately linked to the three to five year program planning and evaluation cycle.

The information on housing and infrastructure should be periodically collected by trained band members for their local communities. Standardised training in the implementation and maintenance of the approach should be provided by DIAND and the cost of developing and maintaining the system borne by the program.

Occasional collaboration and verification by independent regional inspection units should be conducted to provide costing and audit functions and to ensure the objectivity of band estimates of housing need. These independent verification systems should be staffed by trained Indians and, where possible, should build upon existing Indian organisations. These costs should also be borne by the program.

3.2.3 Strengthened Indian Involvement

The evaluation points to the need for much greater levels of Indian involvement and commitment in the housing program. This is particularly true at both the individual household and national/regional levels. Based on our findings we concluded that Indian households who have developed a sense of commitment to their dwellings are demonstrably better housed in dwelling units which are relatively better maintained. It is not a particularly surprising finding that a sense of commitment and attachment to the dwelling produces better cared for houses and higher levels of occupant satisfaction.

This finding is important in the on reserve context because many Indian households and individuals do **not** feel particularly attached to or responsible for their homes. Apart from important cultural factors, we believe the reasons for this lack of a responsibility and commitment ethic include the very marginal nature of housing conditions and amenities for most houses built before 1980, the lack of sufficient post-occupancy training in maintenance responsibilities and requirements, the

traditional "parental" administrative model which pervasively regulate the lives of individuals on reserve and the absence of a system of equity and ownership (or long term tenure protection) for residents. Program changes to increase stimulation of individual responsibility and a sense of belonging should consider these factors.

Based on our study findings we recommend the following strategies, largely directed to the band level, although the support of DIAND may be needed for their implementation.

2.1 Increase individual household involvement in the design process.

Households and bands should be allowed considerable latitude in house design and siting, once basic health and safety standards are met. This would permit the explicit recognition of cultural variety in the perception and use of built space and could enhance the capability of the housing to meet changing household space needs. Greater attention to individual house design and environmental design might also help reduce property damage resulting from frustrations with poor housing conditions. Examples might include better community lighting, siting houses to optimise privacy and security, more attention to window and door placement, etc.. Greater emphasis on the use of maintenance-free construction technologies that reduce operating costs over the lifespan of the house may also assist in reducing the rate of obsolesence.

2.2 Encourage greater levels of sweat equity and capital contribution from households.

In house construction and renovation, both paid and unpaid labour by future occupants of that dwelling should be encouraged. Households should be allowed to supplement basic designs with "luxury" items by using their own resources (the occupant should first contribute cash or sweat equity to the basic construction).

Methods of developing a system of house ownership or equity protection to encourage individual investment and commitment might also be considered. At a minimum, a long term tenure protection system should be established and the tenure relationship of the individual occupant of Section 56.1 housing clarified.

2.3 Encourage greater occupant responsibility for property maintenance.

Awareness of maintenance responsibilities on the part of the occupant should be promoted and provided through meetings, formal training and effective, lucid manuals for new homeowners. The budget for training will need to be increased to permit this.

Bands might consider providing positive inducements for those who have maintained or improved their dwellings and sites, and/or a corresponding set of negative sanctions. Greater attention might also be paid to maintaining property exteriors as poorly maintained sites probably "seed" poor property upkeep practices across the reserve. This would require relatively low level skills to

correct. As a sort of pump-priming exercise, it may be worthwhile to address this symptom.

Our study also showed that high levels of band involvement in housing go hand in hand with greater occupant involvement. Bands should continue to be encouraged to assume higher levels of responsibility and they should be assisted in this process through the development of the necessary skills. Based on assessments of band skill deficiencies, and survey and interview findings, we recommend:

2.4 Much greater emphasis be placed on training, particularly in project management, community planning, construction and rehabilitation, inspection and post-occupancy housing management.

Our broad range of evidence and tests clearly reinforce the wisdom of an approach involving greater Indian and household participation; however, a crucial problem is the marketing and promotion of this approach. It must be developed, refined and marketed by Indians. There is an urgent need for a strong national Indian organisation, with good regional representation, to take a lead role in policy development and implementation of need-based delivery and greater individual commitment. This national organisation should build on existing bodies. Explicit links to regional Indian agencies will help ensure program renewal efforts are well directed and marketed. For these and other reasons we recommend:

2.5 Strengthened Indian involvement in planning and policy development at both the regional and, more importantly, the national level.

These Indian groups should play a key role in interpreting, adapting and implementing evaluation recommendations. Their involvement will need to be formally recognized.

2.6 Explicit consultative mechanisms be developed to encourage and utilise Indian advice in both national and regional planning and policy development.

3.2.4 Program Rationalisation

In examining the structure, functions and impacts of the current program it is obvious that certain organisational changes are required. It is impossible to restrict our focus to the ORHP itself since the complexity of inter-relationships and inter-dependencies with other programs and departments is a major problem. A lack of rational coordination and the sheer redundancy of some of these efforts produces tensions and duplications which impair effectiveness.

Furthermore, we believe that the current arrangement is reinforcing existing levels of inequality. We suspect the larger, more organisationally capable bands tend to be better equipped to negotiate the paper burden and grantsmanship associated with the current system. Bands which are able to combine CMHC and DIAND program funds are able to build superior housing compared to those bands relying solely on DIAND. This may increase inter- and intra-reserve inequalities, fuel the rise of unrealistically high expectations and on the surface, may appear to contradict the serious nature of overall housing conditions. We recommend:

3.1 A single, consolidated on reserve housing program (combining existing CMHC and DIAND housing and other agency housing programs) is clearly the preferred vehicle to the status quo arrangement.

Although this may not be immediately achievable, this approach would solve a range of serious problems, most notably the elimination of coordination problems, stemming from the stacked use of ORHP and CMHC funding (which produces better housing). Inequalities would be partially eliminated. This program will need, minimally, to offer assistance for new construction, renovation and training. Assistance should be directed at individual households as well as band housing authorities.

CMHC, DIAND or, in the longer term, a special purpose organisation, might be considered to take over responsibility for funding of on reserve housing. Depending on the direction of Indian self-government, this special purpose organisation could conceivably be Indian-managed. This single purpose agency would be a decision-making body charged with the responsibility of making resource allocations, developing policy and monitoring performance.

In the interim we recommend the following short run strategies:

3.2 The housing related areas of infrastructure be more carefully planned in conjunction with housing program operational planning.

Ultimately, if it were to occur, the single purpose housing agency might include infrastructure in its mandate.

3.3 Adjustments be made to harmonise objectives of separate federal programs.

Although CMHC and DIAND have evolved a good working arrangement, the objectives of the various agencies are not identical. For example, CMHC programs are concerned with providing modest quality housing for minimum dollar. DIAND has additional objectives, such as job creation. More explicit and formal linkages with other federal agencies will also be beneficial to greater program coordination and effectiveness.

3.4 Greater central guidance, partiularly in the area of defining needs, allocating funds according to true shelter need and demand and monitoring performance.

It is important that regions and districts have a semantically consistent, shared understanding of program goals and objectives. This will entail providing sufficient resources to DIAND national office for this task (current resources are quite inadequate).

3.5 More explicit and structured communication be established between DIAND national, regional and district offices.

Even in the currently decentralised organisational system there is a clear requirement for accountability under

Section 27 of the Financial Administration Act. A gradual move to need-based allocation must entail monitoring and accountability to ensure a consistent implementation and tracking of the program. This will not necessarily require any significant changes in organisational design or reporting relationships but rather more explicit and structured communication flows based on (empirical) need and demand data and program monitoring data. The direction for such an innovation must come from national office.

3.3 Residual Dilemmas

These recommendations have been based on the knowledge gained through this evaluation. We believe that following these recommendations will improve the value for money obtained by the expenditure of program funds, but these alone will not solve the on reserve housing problem. There remains a residual set of structural dilemmas that require decisions based on normative values or considerations which are beyond our study scope and competence.

These normative questions or dilemmas are threefold:

- **What is the appropriate level of resources to be committed to the resolution of the on reserve housing problem and the appropriate sources of funding?**

Given the extreme nature of the housing problem on reserves, the current pace is very slow and an increase in overall funding levels would be justifiable.

Realistically, the current climate of economic restraint may not permit significantly increased levels of financial support. More creative and efficient methods of achieving greater value from existing funding levels must be utilised. Consideration should also be given to supplementing these funds with greater use of household, band and private funds in order to increase the pace of improvement.

- **What is the appropriate balance between housing quantity and housing quality?**

Multiple program use can produce very decent housing - which is not to say extravagant housing - but this cannot be reproduced across the nation without a doubling or trebling of current resource levels. The normative question facing the federal government and the Indian people is whether the aim should be to produce housing of good quality, recognising that it cannot be built everywhere, or to provide a thin but equitable gruel for all. This latter approach was experimented with in the 1970's and the legacy of $5000 houses is coming to roost now. A large number of units were built by this method but this stock is rapidly becoming obsolete. The marginal original building quality does not produce the sense of attachment and maintenance practices that would give the house a more normal lifespan. If the decision is made to concentrate funding so as to produce good quality housing to start with, then one must of course address the question of how funding will be allocated - what characteristics will determine who wins the lottery.

- **What is the appropriate balance between housing and economic development concerns?**

It is impossible and imprudent to artificially isolate housing programs from the more general concerns of socio-economic development on reserves. This is particularly true if we are concerned with providing eventual disengagement from the chronic dependency cycle afflicting most reserves.

The design of an on reserve housing program should be balanced and tempered with the longer term goals of encouraging the evolution of economic, socio-cultural and political self-sufficiency on reserves. The hundreds of millions of dollars spent annually for on reserve housing and infrastructure are and should be recognised as a potent tool for economic and social development. We can suggest various ways of enhancing the potential economic and social development benefits from housing delivery based on our discussions with program clients and planners.

Much more explicit attention should be given to developing a viable Indian construction industry, for example, through the following:

- Extra points might be awarded to Indian firms in tendered federal competitions for projects on reserve or major contractors encouraged to sub-contract to Indian firms.

- Bonding and other forms of necessary assistance to viable Indian firms which are interested in bidding on work outside of their own reserves should be provided.

- Inducements and requirements could be explicitly required for the hiring and training of Indian workers in cases where non-Indian firms are the only available supplier. An inventory of skilled construction workers, which can be used by firms, bands or households, could be maintained by region.

- A much greater emphasis should be placed on training in project management, specification writing, inspection and construction-related job skills.

- Until the necessary expertise levels are obtained or the volume of activity sufficient, the per unit construction or rehabilitation costs with Indian firms might be higher than usual or desirable. DIAND might consider absorbing or sharing the additional capital costs in order not to saddle the eventual occupant with the cost of economic development policies.

- In order to facilitate long term economic development, a system of private property rights and equity development (while still respecting collective ownership of land) could be encouraged on reserves.

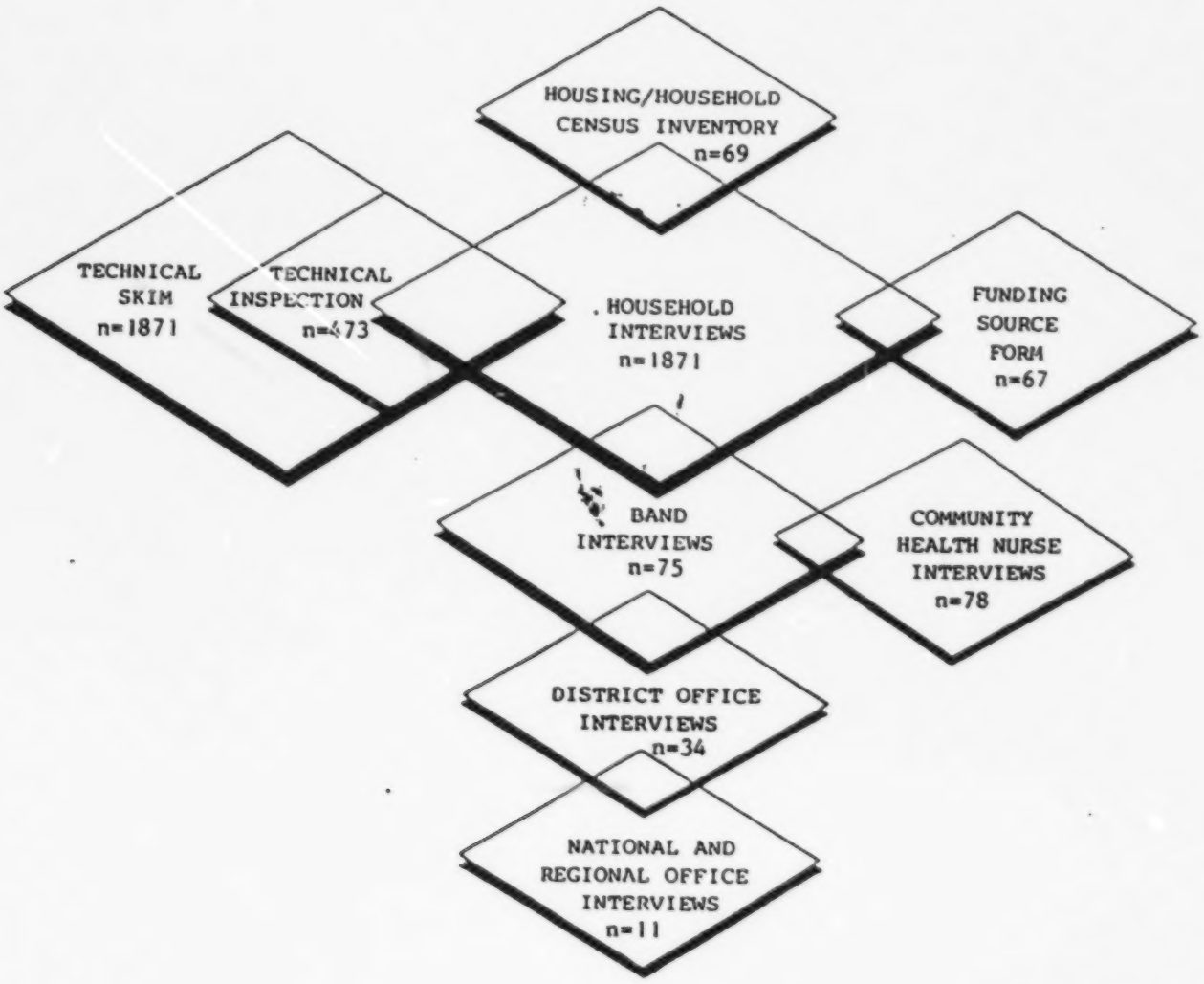
The vast majority (98 per cent) of our sample expressed a desire to own their homes. Furthermore, ownership is one of the most direct methods of stimulating a sense of commitment and attachment. Individual households would be much more willing to invest in houses if they felt

that they would be developing equity (or at least were protected from losing this investment through eviction).

Ownership, private property and equity also imply certain obligations and duties such as debt retirement. It may be timely to take steps towards the inculcation of these concepts on reserve. It is very difficult to selectively appropriate certain attractive parts of the materialist ethic evident in the dominant North American culture (e.g., private homes of good quality) without incorporating some of the less desirable concomitants of such a system (e.g., mortgages, financial responsibility and maintaining the property). The values and images of the mass consumer society are already bombarding the on reserve population through electronic mass media and this trend will continue. Furthermore, the highly interdependent nature of the modern post-industrial world will not permit a pristine maintenance of pure traditional cultures. The challenge is to develop viable, forward looking Indian societies which can effectively adapt to the exigencies and complexity of the modern world while preserving the dignity and value of their traditional cultures.

APPENDICES

APPENDIX A
DATA SOURCES



APPENDIX B
COMPLETED SAMPLE OF INDIAN BANDS FOR ON-RESERVE HOUSING PROGRAM EVALUATION

New Brunswick
Big Cove
Burnt Church
Tobique

Nova Scotia
Pictou Landing
Membertou (Sydney)

Quebec
Hurons de Lorrette
(Lorretteville)
Restigouche
Nemaska
Kipawa
River Desert
Barriere Lake
Montagnais de Lac
St. Jean
Obedjiwan
Natashquan
Bersimis (Betsiamites)

Ontario
Seine River
Beausoleil
Attawapiskat
Northwest Angle No. 37
Whitefish Bay
Alderville
Walpole Island
Wikwemikong
Spanish River
Fort William
Pic Mobert
Batchewana
Garden River
Kasabonika Lake
Deer Lake
Temagami
Poplar Hill

Manitoba
Fort Alexander
Berens River
Little Grand Rapids
Lake Manitoba
Sandy Bay
Birdtail Sioux
Waywayseecappo
Long Plain
Oak Lake
Valley River
Dakota Tipi
Split Lake
The Pas

Saskatchewan
Moosomin
Onion Lake

Saskatchewan (continued)
Poundmaker
Red Pheasant
Lac La Ronge
Peter Ballantyne
Stony Rapids
Cowessess
Sakimay
White Bear
Cote
Beardy's and Okemasis
John Smith
Muskeg Lake
Nikaneet
Piapot
Star Blanket
Poorman
Buffalo River
English River

Alberta
Blackfoot
Sarcee
Blood
Peigan
Alexander
Little Red River
Dene Tha'
Swan River
Bigstone Cree
Saddle Lake
Frog Lake

British Columbia
Kispiox
Gitwangak
Bella Coola
Sliammon
Seabird Island
Necoslie
Okanagan
McLeod Lake
Cape Mudge
Kwakiutl
Chemainus
Cowichan
Metlakatla
Port Simpson
(Lax-Kw'alaams)
Gitlakdamix
Greenville (Lakalzap)
Canim Lake

Yukon
Old Crow

APPENDIX C

LIST OF COMPANION REPORTS

(EKOS)

Technical Report of the Study of On Reserve Housing Conditions, June 1985

Final Report of the Phase I Evaluation of the DIAND On Reserve Housing Program, July 27, 1984

DIAND On Reserve Housing Program Evaluation Pre-Test Field Report, June 4, 1984

On Reserve Housing Program Evaluation Revised Program Component Profile, March 27, 1984

Evaluation Assessment of the Community Infrastructure Component of the Community Infrastructure and Services Program, July 11, 1983

Methodology for the Evaluation of the On Reserve Housing Program (Volumes I and II), March 31, 1983

The Development of a Monitoring and Evaluation System, March 31, 1983

Evaluation Assessment of the On Reserve Program, November 1981

(PRICE WATERHOUSE)

Management Review of the On Reserve Housing Program, June 1985.

(DIAND)

Internal Audits of the On Reserve Housing Program
Statistical Report: Listing of Information Related to the Housing Needs Analysis, 1977